

In the Claims:

A) Claims 2, 5, 7—10, 13, 19, 20, 22, 23 and 25 remain in their original form.

B) Claim 27—29 and 31 are previously presented.

C) Claims 18 and 26 were previously cancelled.

D) Claims 1, 6, 14—17, 21 and 30 are currently amended.

E) Claims 3, 4, 11, 12 and 24 are currently cancelled.

1. (Currently Amended) A transaction processing system comprising:

a database writer configured to process data in accordance with one or more transactions within the transaction processing system;

a transaction monitor for monitoring transactions within the transaction processing system;

a log writer for maintaining audit trail data associated with transactions within the transaction processing system; and

one or more non-disk persistent memory units comprising a primary non-disk persistent memory unit and a mirror non-disk persistent memory unit, associated with the log writer and configured to receive, from the log writer, audit trail data; data;

wherein the log writer is configured to first write audit trail data to the primary non-disk persistent memory unit and then write the audit trail data to the mirror non-disk persistent memory unit.

1 2. (Original) The transaction processing system of claim 1, wherein
2 the log writer comprises a primary audit disk process and a backup audit disk
3 process.

4
5 3. (Cancel) ~~The transaction processing system of claim 1, wherein~~
6 ~~said one or more non-disk persistent memory units comprises a primary non-disk~~
7 ~~persistent memory unit and a mirror non-disk persistent memory unit.~~

8
9 4. (Cancel) ~~The transaction processing system of claim 1, wherein~~
10 ~~said one or more non-disk persistent memory units comprises a primary non-disk~~
11 ~~persistent memory unit and a mirror non-disk persistent memory unit, and wherein~~
12 ~~the log writer is configured to first write audit trail data to the primary non-disk~~
13 ~~persistent memory unit and then write the audit trail data to the mirror non-disk~~
14 ~~persistent memory unit.~~

15
16 5. (Original) The transaction processing system of claim 1, wherein
17 the one or more non-disk persistent memory units comprise a write aside buffer
18 configured to receive the audit trail data, the write aside buffer being configured as
19 a circular buffer.
20
21
22
23
24
25

1 6. (Currently Amended) A transaction processing system
2 comprising:

3 a database writer configured to process data in accordance with one or more
4 transactions within the transaction processing system;

5 a transaction monitor for monitoring transactions within the transaction
6 processing system;

7 a log writer for maintaining audit trail data associated with transactions
8 within the transaction processing system;

9 one or more non-disk persistent memory units associated with the log
10 writer and configured to receive, from the log writer, audit trail data, wherein the
11 memory units comprise a primary non-disk persistent memory unit and a mirror
12 non-disk persistent memory unit; and

13 one or more audit log disks configured to receive audit trail data that is first
14 received by the one or more non-disk persistent memory units;

15 wherein the log writer is configured to first write audit trail data to the
16 primary non-disk persistent memory unit and then write the audit trail data to the
17 mirror non-disk persistent memory unit.

18
19 7. (Original) The system of claim 6, wherein the log writer is
20 configured to cause the audit trail data in the one or more non-disk persistent
21 memory units to be written to the one or more audit log disks when a non-disk
22 persistent memory unit threshold is reached or exceeded.
23
24
25

1 8. (Original) The system of claim 6, wherein the transaction
2 processing system is configured to commit transactions before associated audit
3 trail data is written to the one or more audit log disks.

4
5 9. (Original) The system of claim 6, wherein the transaction
6 processing system is configured to commit transactions after associated audit trail
7 data is received by the one or more non-disk persistent memory units and before
8 the associated audit trail data is written to the one or more audit log disks.

9
10 10. (Original) The system of claim 6, wherein the log writer
11 comprises a primary audit disk process and a backup audit disk process.

12
13 11. (Cancel) ~~The system of claim 6, wherein said one or more non-~~
14 ~~disk persistent memory units comprises a primary non-disk persistent memory unit~~
15 ~~and a mirror non-disk persistent memory unit.~~

16
17 12. (Cancel) ~~The system of claim 6, wherein said one or more non-~~
18 ~~disk persistent memory units comprises a primary non-disk persistent memory unit~~
19 ~~and a mirror non-disk persistent memory unit, and wherein the log writer is~~
20 ~~configured to first write audit trail data to the primary non-disk persistent memory~~
21 ~~unit and then write the audit trail data to the mirror non-disk persistent memory~~
22 ~~unit.~~

1 13. (Original) The system of claim 6, wherein the one or more non-
2 disk persistent memory units comprise a write aside buffer configured to receive
3 the audit trail data, the write aside buffer being configured as a circular buffer.

4
5 14. (Currently Amended) A method comprising:
6 receiving data associated with transaction-induced state changes, wherein
7 the act of receiving is performed by a log writer comprising primary and backup
8 audit disk processes; and
9 writing the received data to non-disk persistent memory sufficient to
10 commit an associated transaction, wherein the act of writing comprises writing the
11 received data to first and second non-disk persistent memory units.

12
13 15. (Currently Amended) The method of claim 14, wherein ~~the act~~
14 ~~of writing comprises writing the received data to first and second non-disk~~
15 ~~persistent memory units, the first non-disk persistent memory unit comprising~~
16 comprises a primary non-disk persistent memory unit, the unit and the second non-
17 disk persistent memory unit comprising comprises a mirror non-disk persistent
18 memory unit.

1 16. (Currently Amended) The method of claim 14, wherein the act
2 ~~of writing comprises writing the received data to first and second non-disk~~
3 ~~persistent memory units, the first non-disk persistent memory unit comprising~~
4 ~~comprises a primary non-disk persistent memory unit, the unit and the second non-~~
5 ~~disk persistent memory unit comprising comprises a mirror non-disk persistent~~
6 ~~memory unit, the unit and the act of writing comprising comprises first writing the~~
7 ~~received data to the primary non-disk persistent memory unit and then writing the~~
8 ~~received data to the mirror non-disk persistent memory unit.~~

9
10 17. (Currently Amended) The method of claim 14, wherein the act
11 ~~of writing comprises writing the received data to first and second non-disk~~
12 ~~persistent memory units, the first non-disk persistent memory unit comprising~~
13 ~~comprises a primary non-disk persistent memory unit, the unit and the second non-~~
14 ~~disk persistent memory unit comprising comprises a mirror non-disk persistent~~
15 ~~memory unit, the unit and the act of writing comprising comprises concurrently~~
16 ~~writing the received data to the primary non-disk persistent memory unit and the~~
17 ~~mirror non-disk persistent memory unit.~~

18
19 18. (Cancel)

20
21 19. (Original) The method of claim 14 further comprising after
22 writing the received data to the non-disk persistent memory, writing the
23 transaction-induced state change data to one or more audit log disks.
24
25

1 20. (Original) The method of claim 14 further comprising after
2 writing the received data to the non-disk persistent memory, writing the
3 transaction-induced state change data to one or more audit log disks, wherein the
4 act of writing the transaction-induced state change data to the one or more audit
5 log disks comprises doing so responsive to a threshold associated with the non-
6 disk persistent memory being reached or exceeded.

7
8 21. (Currently Amended) A method comprising:
9 maintaining at least two write aside buffers in non-disk persistent memory,
10 a first of the buffers comprising a primary buffer, a second of the buffers
11 comprising a mirror buffer;

12 synchronously flushing audit data associated with one or more transactions
13 to said at least two write aside buffers, wherein said act of synchronously flushing
14 is sufficient to commit an associated transaction; and

15 when a predetermined condition is met, writing the audit data in the write
16 aside buffers to one or more audit log disks.

17
18 22. (Original) The method of claim 21, wherein the act of
19 maintaining comprises maintaining said buffers as circular buffers.

20
21 23. (Original) The method of claim 21, wherein the predetermined
22 condition comprises a threshold condition.

1 24. (Cancel) ~~The method of claim 21, wherein said act of~~
2 ~~synchronously flushing is sufficient to commit an associated transaction.~~

3
4 25. (Original) The method of claim 21, wherein said acts are
5 performed by a transaction processing system that comprises a database writer
6 component, a transaction monitor component and a log writer component, each
7 component being implemented as a primary-backup process pair.

8
9 26. (Cancel)

10 27. (Previously Presented) A method comprising:
11 receiving data associated with transaction-induced state changes; and
12 writing the received data to non-disk persistent memory sufficient to
13 commit an associated transaction, wherein the act of writing comprises writing the
14 received data to first and second non-disk persistent memory units, the first non-
15 disk persistent memory unit comprising a primary non-disk persistent memory
16 unit, the second non-disk persistent memory unit comprising a mirror non-disk
17 persistent memory unit.

18
19 28. (Previously Presented) A method comprising:
20 receiving data associated with transaction-induced state changes; and
21 writing the received data to non-disk persistent memory sufficient to
22 commit an associated transaction, wherein the act of writing comprises writing the
23 received data to first and second non-disk persistent memory units, the first non-
24 disk persistent memory unit comprising a primary non-disk persistent memory
25

1 unit, the second non-disk persistent memory unit comprising a mirror non-disk
2 persistent memory unit, the act of writing comprising first writing the received
3 data to the primary non-disk persistent memory unit and then writing the received
4 data to the mirror non-disk persistent memory unit.

5
6 29. (Previously Presented) A method comprising:
7 receiving data associated with transaction-induced state changes; and
8 writing the received data to non-disk persistent memory sufficient to
9 commit an associated transaction, wherein the act of writing comprises writing the
10 received data to first and second non-disk persistent memory units, the first non-
11 disk persistent memory unit comprising a primary non-disk persistent memory
12 unit, the second non-disk persistent memory unit comprising a mirror non-disk
13 persistent memory unit, the act of writing comprising concurrently writing the
14 received data to the primary non-disk persistent memory unit and the mirror non-
15 disk persistent memory unit.

16
17 30. (Currently Amended) A method comprising:
18 receiving data associated with transaction-induced state changes;
19 writing the received data to non-disk persistent memory sufficient to
20 commit an associated transaction, wherein the act of writing comprises writing the
21 received data to first and second non-disk persistent memory units; and
22 after writing the received data to the non-disk persistent memory, writing
23 the transaction-induced state change data to one or more audit log disks.
24
25

1 31. (Previously Presented) A method comprising:
2 receiving data associated with transaction-induced state changes;
3 writing the received data to non-disk persistent memory sufficient to
4 commit an associated transaction; and
5 after writing the received data to the non-disk persistent memory, writing
6 the transaction-induced state change data to one or more audit log disks, wherein
7 the act of writing the transaction-induced state change data to the one or more
8 audit log disks comprises doing so responsive to a threshold associated with the
9 non-disk persistent memory being reached or exceeded.